



NOAA FY 2001 Budget Request Fact Sheet

CLEAN WATER INITIATIVE

OUR SEAS AND OUR SKIES



Control of Harmful Algal Blooms - \$2.4 Million Increase, \$10.4 Million Total

NOAA requests \$10.4 million in FY 2001, an increase of \$2.4 million from the FY 2000 appropriated level, to enhance and expand efforts to minimize the impacts of harmful algal blooms (HABs) on coastal waters and public health. The Control of Harmful Algal Blooms is a key component of NOAA's FY 2001 Clean Water Initiative.

The Growing Problem of Algal Blooms

Among coastal issues facing the nation today, harmful algal blooms are an increasingly challenging problem causing reductions in fish and shellfish harvests, mortalities in marine mammal and other protected species, and threatening public health. Harmful algal blooms (HABs) are accumulations of microscopic species of algae or the larger, multicellular species. They appear to be more devastating than ever before, and are increasing over time. These algae produce toxins that have direct and damaging effects on local plants and animals; others have indirect effects on organisms by changing local environmental conditions. These problems have negatively impacted economies in many coastal communities. For example, *Pseudo-nitzschia* blooms have prevented public collection of razor clams in the Pacific Northwest. Increasing threats to public health are major concerns for many coastal regions that are susceptible to toxic blooms including New England (shellfish poisoning, farmed fish mortalities), Pacific coast and Alaska (shellfish poisoning, marine mammal mortalities, farmed fish mortalities), Gulf and South Atlantic Coasts (red tides), mid-Atlantic (*Pfiesteria*-like species), Long Island

Major HAB-related Events in the Coastal U.S.



Source: National Oceanic and Atmospheric Administration

(brown tides), and the tropics (ciguatera poisonings). The list of affected resources, economies, and habitats affected by HABs is growing. While our ability to approach these problems has increased through recent interagency efforts like the HAB National Event Response Plan, much more remains to be done to address this major problem.

Responding to the Problem

NOAA has taken the lead in the Federal response to this problem by focusing its research, monitoring, and assessment capabilities, and its academic partnerships on improving the scientific basis for understanding, predicting, and controlling HAB events. NOAA's FY 2001 request will expand support to states for bloom response, monitoring and assessment activities. It will facilitate expansion of national efforts to monitor, understand, and assess full impacts of algal blooms. Funds will be used to expand research and technology advances in the Ecology and Oceanography of Harmful Algal Blooms (ECOHAB) research program, as well as evaluate options for management, control and mitigation of bloom effects. It will also accelerate development of HAB cell and toxin detection methods.

NOAA Budget

	FY 2001 Request \$ millions
National Ocean Service	
Ocean Resources Conservation and Assessment	
(Control of Harmful Algal Blooms)	\$10.4
(Coastal Protection and Restoration)	\$1.0
Ocean and Coastal Management	
(CZMA Grants)	\$6.0
(Coastal Nonpoint Pollution Control)	\$4.5
Clean Water Initiative Total	\$ 21.9

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NOAA requests an increase of \$2.4 million in FY 2001 for:

- continuing interagency cooperation through the ECOHAB research programs to develop models for forecasting HAB outbreaks and their impacts; selecting appropriate prevention, control, and mitigation options for reducing impacts; and developing new tools for routine application in local monitoring programs;
- strengthening NOAA-State partnerships for improving HAB monitoring and assessment capabilities;
- expanding capabilities to assist States in responding quickly to HAB events; and
- implementing research on the link between nutrient input to coastal waters, oxygen depletion, and HABs.

Why NOAA?

The Harmful Algal Bloom and Hypoxia Research and Control Act of 1998 authorizes NOAA to address the Nation's HAB problems. Through the act, NOAA was recognized as possessing the comprehensive capabilities necessary for leading Federal efforts, and working with partners to respond to HABs. NOAA is focusing its capabilities - including ongoing research, education, grant, and coastal resource management programs - in support of a near and long-term comprehensive effort to prevent, reduce, and control HABs. For example, NOAA, through its ECOHAB and other programs, conducts and supports State monitoring and assessment efforts for selected HAB problems; organizes and sponsors workshops, training sessions, and a national clearing house for rapid distribution of HAB-specific information; develops new ways to detect and understand several HABs including *Pfiesteria*; and oversees the Federal event response capability. NOAA also coordinates the interagency ECOHAB program designed to develop forecasting models for HAB landfall and toxicity in our coastal waters, assess prevention, control, and mitigation options for HABs, and develop new detection methodologies for cells and their toxins. The ECOHAB program is critical to providing decision makers with timely information to respond to HABs, and to develop effective control and prevention strategies.



*These lesions, believed to be caused by toxins produced by the dinoflagellate *Pfiesteria piscicida*, make fish such as these menhaden vulnerable to secondary infections.*

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